

# PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

# PCT

To:  
MODIANO & ASSOCIATI  
Attn. Modiano, Guido  
Via Meravigli, 16  
I-20123 Milano  
ITALY

NOTIFICATION OF TRANSMITTAL OF  
THE INTERNATIONAL SEARCH REPORT AND  
THE WRITTEN OPINION OF THE INTERNATIONAL  
SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Date of mailing (day/month/year) 06/12/2004	
Applicant's or agent's file reference 38735/SM/ch	<b>FOR FURTHER ACTION</b> See paragraphs 1 and 4 below
International application No. PCT/EP2004/009973	International filing date (day/month/year) 07/09/2004
Applicant  URETEK S.R.L.	

1. ☒ The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

**Filing of amendments and statement under Article 19:**

The applicant is entitled, if he so wishes, to amend the claims of the International Application (see Rule 46):

**When?** The time limit for filing such amendments is normally 2 months from the date of transmittal of the International Search Report; however, for more details, see the notes on the accompanying sheet.

**Where?** Directly to the International Bureau of WIPO, 34 chemin des Colombettes  
1211 Geneva 20, Switzerland, Facsimile No.: (41-22) 740.14.35

**For more detailed instructions,** see the notes on the accompanying sheet.

2. ☐ The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.
3. ☐ **With regard to the protest** against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

- ☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.
- ☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

**4. Reminders**


Shortly after the expiration of **18 months** from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90*bis*.1 and 90*bis*.3, respectively, before the completion of the technical preparations for international publication.

The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. These comments would also be made available to the public but not before the expiration of 30 months from the priority date.

Within **19 months** from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until **30 months** from the priority date (in some Offices even later); otherwise, the applicant must, **within 20 months** from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

In respect of other designated Offices, the time limit of **30 months** (or later) will apply even if no demand is filed within 19 months.

See the Annex to Form PCT/IB/301 and, for details about the applicable time limits, Office by Office, see the *PCT Applicant's Guide*, Volume II, National Chapters and the WIPO Internet site.

Name and mailing address of the International Searching Authority  European Patent Office, P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer  Line Wagnersen
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## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 38735/SM/ch	<b>FOR FURTHER ACTION</b> see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. PCT/EP2004/009973	International filing date (day/month/year) 07/09/2004	(Earliest) Priority Date (day/month/year) 07/11/2003
Applicant  URETEK S.R.L.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 4 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box II).

3. ☐ **Unity of invention is lacking** (see Box III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regards to the **drawings**,

- a. the figure of the **drawings** to be published with the abstract is Figure No. 10

☒ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

- b. ☐ none of the figures is to be published with the abstract.

## INTERNATIONAL SEARCH REPORT

International Application No  
PCT/EP2004/009973

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 E02D3/12 E02D29/02

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 E02D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PATENT ABSTRACTS OF JAPAN vol. 0180, no. 44 (M-1547), 24 January 1994 (1994-01-24) & JP 5 272126 A (OKABE CO LTD), 19 October 1993 (1993-10-19)	1-5
A	abstract	6-72
X	EP 0 851 064 A (URETEK S R L) 1 July 1998 (1998-07-01) column 3, line 30 - column 3, line 45	1
X	EP 1 314 824 A (URETEK S R L) 28 May 2003 (2003-05-28) page 3, line 22 - page 4, line 16	1
X	GB 2 135 721 A (GKN KELLER GMBH) 5 September 1984 (1984-09-05) claims 1-9; figure 1	1
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

\* Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \* & \* document member of the same patent family

Date of the actual completion of the international search

29 November 2004

Date of mailing of the international search report

06/12/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Nilsson, L

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP2004/009973

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PATENT ABSTRACTS OF JAPAN vol. 0176, no. 67 (M-1524), 9 December 1993 (1993-12-09) & JP 5 222717 A (OKABE CO LTD), 31 August 1993 (1993-08-31) abstract; figures 3,4 -----	1
A	PATENT ABSTRACTS OF JAPAN vol. 0145, no. 19 (M-1048), 14 November 1990 (1990-11-14) & JP 2 217518 A (SHIMIZU CORP), 30 August 1990 (1990-08-30) abstract -----	1-72

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2004/009973

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
JP 5272126	A	19-10-1993	NONE	
EP 0851064	A	01-07-1998	IT 1286418 B1	08-07-1998
			AT 181384 T	15-07-1999
			AT 250170 T	15-10-2003
			AU 731637 B2	05-04-2001
			AU 5751998 A	29-06-1998
			CA 2273345 A1	11-06-1998
			DE 69700280 D1	22-07-1999
			DE 69700280 T2	04-11-1999
			DE 69724994 D1	23-10-2003
			WO 9824982 A1	11-06-1998
			EP 0851064 A1	01-07-1998
			EP 0941388 A1	15-09-1999
			ES 2132983 T3	16-08-1999
			GR 3030659 T3	29-10-1999
			HU 0000359 A2	28-06-2000
			JP 2001510514 T	31-07-2001
			PL 186495 B1	30-01-2004
			SI 851064 T1	31-10-1999
			US 2002098042 A1	25-07-2002
EP 1314824	A	28-05-2003	IT MI20012496 A1	27-05-2003
			BR 0214435 A	03-11-2004
			CA 2467630 A1	05-06-2003
			WO 03046296 A1	05-06-2003
			EP 1314824 A1	28-05-2003
GB 2135721	A	05-09-1984	DE 3307619 A1	11-10-1984
			AT 387811 B	28-03-1989
			AT 71484 A	15-08-1988
JP 5222717	A	31-08-1993	JP 2982989 B2	29-11-1999
JP 2217518	A	30-08-1990	JP 2673153 B2	05-11-1997

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## PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/SA/220

PCT

WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY  
(PCT Rule 43*bis*.1)

Date of mailing  
(day/month/year) see form PCT/SA/210 (second sheet)

Applicant's or agent's file reference  
see form PCT/ISA/220

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
PCT/EP2004/009973

International filing date (day/month/year)  
07.09.2004

Priority date (day/month/year)  
07 11 2003

International Patent Classification (IPC) or both national classification and IPC  
E02D3/12, E02D29/02

Applicant  
URETEK S.R.L.

1. This opinion contains indications relating to the following items:

- |                                     |              |  |
|-------------------------------------|--------------|--|
| <input checked="" type="checkbox"/> | Box No. I    | Basis of the opinion   |
| <input checked="" type="checkbox"/> | Box No. II   | Priority   |
| <input type="checkbox"/>            | Box No. III  | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability   |
| <input type="checkbox"/>            | Box No. IV   | Lack of unity of invention   |
| <input checked="" type="checkbox"/> | Box No. V    | Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/>            | Box No. VI   | Certain documents cited  |
| <input type="checkbox"/>            | Box No. VII  | Certain defects in the international application   |
| <input type="checkbox"/>            | Box No. VIII | Certain observations on the international application  |

## 2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



European Patent Office  
D-80298 Munich  
Tel. +49 89 2399 - 0 Tx: 523656 epmu d  
Fax: +49 89 2399 - 4465

Authorized Officer

Nilsson, L

Telephone No. +49 89 2399-2460



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**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/EP2004/009973

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**Box No. I Basis of the opinion**

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1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
  - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material:
    - ☐ a sequence listing
    - ☐ table(s) related to the sequence listing
  - b. format of material:
    - ☐ in written format
    - ☐ in computer readable form
  - c. time of filing/furnishing:
    - ☐ contained in the international application as filed.
    - ☐ filed together with the international application in computer readable form.
    - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/EP2004/009973

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**Box No. II Priority**

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1. ☒ The following document has not been furnished:

☒ copy of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(a)).

☐ translation of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

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**Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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1. Statement

Novelty (N)	Yes: Claims	6-72
	No: Claims	1-5
Inventive step (IS)	Yes: Claims	
	No: Claims	6-72
Industrial applicability (IA)	Yes: Claims	1-72
	No: Claims	

2. Citations and explanations

**see separate sheet**



**Re Item V.**

- 1) The following documents are referred to in this communication:
- D1 : PATENT ABSTRACTS OF JAPAN vol. 0180, no. 44 (M-1547), 24 January 1994 (1994-01-24) & JP 5 272126 A (OKABE CO LTD), 19 October 1993 (1993-10-19)
- D2 : EP 0 851 064 A (URETEK S R L) 1 July 1998 (1998-07-01)
- D3 : EP 1 314 824 A (URETEK S R L) 28 May 2003 (2003-05-28)
- D4 : GB 2 135 721 A (GKN KELLER GMBH) 5 September 1984 (1984-09-05)
- D5 : PATENT ABSTRACTS OF JAPAN vol. 0176, no. 67 (M-1524), 9 December 1993 (1993-12-09) & JP 5 222717 A (OKABE CO LTD), 31 August 1993 (1993-08-31)
- D6 : PATENT ABSTRACTS OF JAPAN vol. 0145, no. 19 (M-1048), 14 November 1990 (1990-11-14) & JP 2 217518 A (SHIMIZU CORP), 30 August 1990 (1990-08-30)

- 2) The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT. Document D1 discloses (the references in parenthesis applying to this document):

A method for increasing the strength of a volume of soil, particularly for containing and supporting excavation faces, whereby it comprises at least one reinforcement step that comprises the following steps:

- a step for preparing receptacles for a reinforcement structure, in which a plurality of mutually spaced reinforcement holes are formed, said holes being arranged substantially vertically or inclined with respect to vertical direction in the volume of soil to be strengthened;
- a step for inserting the reinforcement structure, during which reinforcement elements are inserted in said reinforcement holes;
- a step for locking the reinforcement structure, during which a synthetic locking substance that expands by a chemical reaction is injected into said reinforcement holes, said substance being adapted to bond said reinforcement elements with the surrounding soil. (see the abstract together with the figures)

- 3) **DEPENDENT CLAIMS 2-5**
- Dependent claims 2-5 do not contain any features which, in combination with the

features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step (Article 33(2) and (3) PCT).

- 4) Inasmuch as the features of dependent claims 6-72 are not directly known from D1, they obviously concern only minor modifications thereto which come within the customary practice followed by a person skilled in the art and which cannot therefore be regarded as inventive (Article 33 (3) PCT).  
Consequently, dependent claims 6-72 do not appear to contain any additional features which, in combination with the features of any claim to which they refer, involve an inventive step.
- 5) Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the documents D1-D6 is not mentioned in the description, nor are these documents identified therein.
- 6) The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).